WHAT IS CLAIMED IS:

1. A polymer foam or film composition for delivery of pharmacologically effective agents topically to nasal, buccal, vaginal, labial or scrotal epithelium or through nasal, buccal, vaginal, labial or scrotal epithelium into a systemic circulation, said composition comprising at least one substrate polymer or a mixture of substrate polymers and a pharmacologically effective agent.

2. The composition of claim 1 wherein said substrate polymer is hydrophilic, hydrophobic or a mixture of both.

3. The composition of claim 3 wherein said substrate polymer is selected for the group consisting of hydropropyl methylcellulose, gelatin, alginic acid, alginic acid sodium salt, polyethyleneglycol, pectin, collagen, poloxamer, carbopol, microcrystalline cellulose, polyacrylic acid, polyethylene glycol, polypropylene glycol, divinyl glycol, polyethylene oxide, polypropylene oxide, carboxymethyl cellulose, hydroxypropylmethyl cellulose, hydroxyethyl cellulose, polylactide, polyglycolide, polymethacrylic acid, poly-γ-benzyl-L-glutamate, polypropylene fumarate, poly-ϵ-caprolactone, poly-butylene terephthalate, polyvinyl alcohol, polyvinyl ether, poly-1-vinyl-2-pyrrolidinone, 2,5-dimethyl-1,5-hexadiene, divinyl benzene, polystyrene-divinyl benzene, polybis*p*-carboxy-phenoxypropane-*co*-sebacic acid, poly-β-hydroxybutyrate, poly-β-butyrolactone, tetraethylorthosilicate and dimethyldiethoxysilane.

4. The composition of claim 2 wherein the polymer is hydropropyl methylcellulose, gelatin, alginic acid, alginic acid sodium salt, polyethyleneglycol, pectin, collagen, poloxamer, carbopol or microcrystalline cellulose.

5. The composition of claim 4 further comprising a penetration enhancer, sorption promoter, mucoadhesive agent, hydrophilic or hydropholic release modifier, or a mixture thereof.

6. The composition of claim 5 wherein said mucoadhesive agent is selected form the consisting of hydroxypropyl methylcellulose, carboxymethylcellulose, polylactide-coglycolide, chitosan, chitosan ester or trimethylene chloride chitosan, sodium alginate, poloxamer, carbopol, pectin, polyacrylic acid, hyaluronic acid, polyvinyl alcohol, polyvinyl pyrrolidone, polycarbophil and carbopol,

wherein said penetration enhancer is selected from the group consisting of sodium caproate, sodium caprylate, sodium caprate, sodium laurate, sodium myristate, sodium palmitate, sodium palmitoleate, sodium oleate, sodium ricinoleate, sodium linoleate, sodium stearate, sodium lauryl sulfate, sodium tetradecyl sulfate, sodium laryl sarcosine, sodium dioctyl sulfosuccinate, sodium cholate, sodium taurocholate, sodium glycocholate, sodium deoxycholate, sodium taurodeoxycholate, sodium glycodeoxycholate, sodium ursodeoxycholate, sodium chenodeoxycholate, sodium taurochenodexoycholate, sodium glycol chenodesoxycholate, sodium cholylsarcosine, sodium *N*-methyl taurocholate, sodium tauro-24,25-dihydrofusidate, disodium polyoxyethylene-10 oleyl ether phosphate, esterification product of fatty alcohols, fatty alcohol ethoxylate with phosphoric acid or anhydride, ether carboxylate, succinylated monoglyceride, sodium stearyl fumarate, steaoryl propylene glycol hydrogen succinate, mono/diacetylated tartaric acid ester of mono- and diglycerides, citric acid esters of mono- and diglycerides, glyceryl-lacto esters of fatty acids, lactylic ester of fatty acids, alginate salt, ethoxylated alkyl sulfate, alkyl benzene sulfone, α-olefin sulfonate, acyl isethionate, acyl taurate, alkyl glyceryl ether sulfonate, octyl sulfosuccinate disodium, disodium undecylenamideo-MEA-sulfosuccinate, phosphatidic acid, phosphatidyl glycerol, polyacrylic acid, hyaluronate sodium, glycyrrhetinic acid,

ethylene diamine tetraacetate, sodium citrate, chitosan, trimethyl chitosan, poly-*L*-arginine chitosan, poly-*L*-lysine chitosan, aminated gelatin, hexadecyl triammonium chloride, decyl trimethylammonium chloride, cetyl trimethylammonium chloride, alkyl benzyldimethylammonium chloride, diisobutyl phenoxyethoxydimethyl benzylammonium chloride, ethyl pyridinium chloride, isopropyl pyridinium chloride, *N*-lauryl,N,N-dimethylglycine, *N*-capryl,N,N-diethylglycine, polyoxyethylene-coconut amine, poly-*L*-lysine, poly-*L*-arginine, lecithin, lysolecithin, hydroxylated lecithin, lysophosphatidylcholine, phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, didecanoyl-L-α-phosphatidylcholine, laurolycarnitine, acylcarnitine, palmitoyl-D,L-carnitine, polyoxyethylene lauryl ether, polyoxyethylene monooleyl ether, ethoxydiglycol, polyoxyethylene nonylphenol polyoxyethylene octylphenol ether, polyoxyethylene cholesterol ether, polyoxyethylene soya sterol ether, α-cyclodextrin, β-cyclodextrin, γ-cyclodextrin, dimethyl-β-cyclodextrin, methylated-β-cyclodextrin, 2-hydroxypropyl-β-cyclodextrin, sorbitol, polyoxyethylene glycol ester, polyoxyethylene glycerol fatty acid ester, polyoxyethylene glycerol fatty acid ester, polyoxyethylene glyceride, polyoxyethylene vegetable or hydrogenated oil, polyoxyethylene monooleate, polyoxyethylene dilaurate, polyoxyethylene mono and dioleate, polyoxyethylene glyceryl laurate, polyoxyethylene glyceryl oleate, propylene glycol oleate, propylene glycol stearate, polyoxyethylene sorbitan monooleate, polyoxyethylene tristearate, polyoxyethylene hydrogenated castor oil, polyoxyethylene almond oil, polyoxyethylene apricot kernel oil, polyoxyethylene caprylic glyceride, polyoxyethylene capric glyceride, lauroyl macrogol glyceride, and

wherein said release modifier is selected from the group consisting of polyethylene glycol 200, polyethylene glycol 8000, poloxamer, polyoxyethylene glycerylcocoate, carbopol, suppocire AS2X, suppocire CM, Witepsol H15, Witepsol W25, mineral oil, corn oil, paraffin oil, canola oil, castor oil,

cottonseed oil, lecithin, peanut oil, sesame oil, soybean oil and hydrogenated vegetable oil.

7. The composition of claim 6 wherein said mucoadhesive agent is present in from about 0.5% to about 10% by weight, wherein said penetration enhancer is present in amount from about 0.1% to about 60% by weight, wherein said release modifier is present in amount from about to about 5% to about 70% by weight.

8. The composition of claim 7 further comprising pharmacologically acceptable additives or excipients.

9. The composition of claim 8 wherein said additives or excipients are solubilizing agents, buffering agents, fillers, preservatives, plasticizers, surfactants or anti-oxidants.

10. The composition of claim 9 wherein the substrate polymer, alone or in combination, is further combined with a pharmacologically effective agent selected from the group consisting of an anti-osteoporotic, non-steroidal anti-inflammatory, calcium channel antagonist, local anesthetic, potassium channel antagonists, β-adrenergic agonist, vasodilator, cyclooxygenase inhibitor, anti-fungal, antiviral, antimicrobial, antiparasitic, anti-epileptic, anti-migraine, anti-HIV, anti-neurodegenerative, anti-psychotic, chemotherapeutic or anti-neoplastic and opioid analgesic agent.

11. The composition of claim 10 wherein said nonsteroidal anti-inflammatory drug is selected from the group consisting of aspirin, ibuprofen, indomethacin, phenylbutazone, bromfenac, fenamate, sulindac, nabumetone, ketorolac, and naproxen;

wherein said calcium channel antagonist is selected from the group consisting of diltaizem, israpidine, nimodipine, felodipine, verapamil, nifedipine, nicardipine, and bepridil;

wherein said potassium channel blocker is selected from the group consisting of dofetilide, almokalant, sematilide

ambasilide, azimilide, tedisamil, sotalol, piroxicam and ibutilide;

wherein said β-adrenergic agonist is selected from the group consisting of terbutaline, salbutamol, metaproterenol, ritodrine;

wherein said COX-2 or COX-1 inhibitor is selected from the group consisting of naproxen, ketoprofen, ketorolac, indomethacin, diclofenac, teroxicam, celecoxib, meloxicam and flosulide;

wherein said vasodilator is selected from the group consisting of nitroglycerin, isosorbide dinitrate, and isosorbide mononitrate;

wherein said bisphosphonate is selected from the group consisting of alendronate, clodronate, etidronate, pamidronate, tiludronate, ibandronate, zoledronate, alpadronate, residronate and neridronate;

wherein said antifungal agent selected from the group consisting of miconazole, terconazole, isoconazole, fenticonazole, tioconazole, fluconazole, nystatin, ketoconazole, clotrimazole, butoconazole, econazole, metronidazole and itraconazole;

wherein said antibacterial agent is selected from the group consisting of metronidazole, clindamycin, tetramycin, erythromycin, doxicycline, lumefloxacin, norfloxacin, afloxam, ciproflaxin, azitromycin, cefltoxime and doxicycline;

wherein said selected parasiticidal agent is metronidazole and clotrimazole;

wherein said antiviral agent is acyclovir or AZT;

wherein said anti-migraine agent is almotriptan, eletriptan, flovatriptan, naratriptan, rizatriptan, sumatriptan, zolmitriptan, ergotamine, dihydroergotamine, bosentan and lanepitant;

wherein said anti-cancer agent is vincristine, cisplastin, doxorubicin, daunorubicin, etoposide, topotecan, irinotecan, paclitaxel, docetaxel, cyclophosphamide, methotrexate, and gemcitabine;

wherein said anti-HIV agent is saquinavir, ritonavir, indinavir, amprenavir, nelfinavir, lopinavir and ganciclovir; and

wherein said biotechnology-derived protein or peptide is insulin, calcitonin, vasopressin, luprolide, somatostatin, oxytocin, bivalirudin, integrilin, natrecor, abarelix, gastrine G17, peptide, ziconotide, cereport, interleukin, humanized antibodies and growth hormone.

12. The composition of claim 11 administered to a surface of a nasal, buccal, vaginal, labial or scrotal device.

13. The composition of claim 12 formulated as a foam.

14. The composition of claim 13 wherein the foam has a variable shape and size.

15. The composition of claim 14 wherein the foam is preformed into a device shaped as a sheet, tube, tampon, cylinder, pillow, strip, pad, sphere, tablet, ring, or bead.

16. The composition of claim 12 formulated as a film.

17. The composition of claim 16 wherein the foam has a variable thickness and size.

18. The composition of claim 12 wherein the film is used as a coating for a nasal, buccal, vaginal or labial device.

19. The composition of claim 18 wherein said foam or film is prepared by lyophilization or by aeration.

20. A device comprising a polymer foam or film composition of claims 1-18, said device suitable for delivery of therapeutically effective agents topically to a nasal, buccal, vaginal or labial cavity wherein said device is either

coated with said composition or said composition is incorporated into said device.

21. The device of claim 19 wherein the device is a tampon, tampon-like device, ring, sponge, pessary, suppository, pillow, pad, strip, cylinder, sphere or bead and wherein the composition is a foam or film coating or a foam or film incorporated into said device.

22. A method for topical or systemic delivery of drugs to or through nasal, buccal, vaginal, labial or scrotal epithelium said method comprising a step of contacting the vaginal, nasal, buccal, labial or scrotal epithelium with a foam or film composition consisting essentially of a substrate polymer and a pharmacologically effective agent.

23. The method of claim 22 wherein pharmacologically effective agent is selected from the group consisting of an nonsteroidal anti-inflammatory, anti-prostaglandin, prostaglandin inhibitor, cyclooxygenase inhibitor, calcium channel blocker, potassium channel blockers, β-adrenergic agonists, vasodilator, antibiotic, antimycotic, bisphosphonate, anti-nausea, anti-psychotic, anti-migraine, anti-HIV, anti-cancer, chemotherapeutic, a biotechnology derived protein or peptide, anti-epileptic, opioid analgesic,

wherein the amount of said pharmacological agent in the said composition administered to the mucosa is sufficient to deliver a therapeutically effective dose from about 0.01 to about 2000 mg of the pharmacological agent to the systemic circulation.

24. The method of claim 23 wherein said nonsteroidal anti-inflammatory drug is selected from the group consisting of aspirin, ibuprofen, indomethacin, phenylbutazone, bromfenac, fenamate, sulindac, nabumetone, ketorolac, and naproxen;

wherein said calcium channel antagonist is selected from the group consisting of diltaizem, israpidine, nimodipine, felodipine, verapamil, nifedipine, nicardipine, and bepridil;

wherein said potassium channel blocker is selected from the group consisting of dofetilide, almokalant, sematilide ambasilide, azimilide, tedisamil, sotalol, piroxicam and ibutilide;

wherein said β-adrenergic agonist is selected from the group consisting of terbutaline, salbutamol, metaproterenol, ritodrine;

wherein said cyclooxygenase inhibitor is selected from the group consisting of naproxen, ketoprofen, ketorolac, indomethacin, diclofenac, teroxicam, celecoxib, meloxicam and flosulide;

wherein said vasodilator is selected from the group consisting of nitroglycerin, isosorbide dinitrate, and isosorbide mononitrate;

wherein said bisphosphonate is selected from the group consisting of alendronate, clodronate, etidronate, pamidronate, tiludronate, ibandronate, zoledronate, alpadronate, residronate and neridronate;

wherein said antifungal agent selected from the group consisting of miconazole, terconazole, isoconazole, fenticonazole, tioconazole, fluconazole, nystatin, ketoconazole, clotrimazole, butoconazole, econazole, metronidazole and itraconazole;

wherein said antibacterial agent is selected from the group consisting of metronidazole, clindamycin, tetramycin, erythromycin, doxicycline, lumefloxacin, norfloxacin, afloxam, ciproflaxin, azitromycin, cefltoxime and doxicycline;

wherein said selected parasiticidal agent is metronidazole and clotrimazole;

wherein said antiviral agent is acyclovir or AZT;

wherein said anti-migraine agent is almotriptan, eletriptan, flovatriptan, naratriptan, rizatriptan, sumatriptan, zolmitriptan, ergotamine, dihydroergotamine, bosentan and lanepitant;

wherein said anti-cancer agent is vincristine, cisplastin, doxorubicin, daunorubicin, etoposide, topotecan, irinotecan, paclitaxel, docetaxel, cyclophosphamide, methotrexate, and gemcitabine;

wherein said anti-HIV agent is saquinavir, ritonavir, indinavir, amprenavir, nelfinavir, lopinavir and ganciclovir; and

wherein said biotechnology-derived protein or peptide is insulin, calcitonin, vasopressin, luprolide, somatostatin, oxytocin, bivalirudin, integrilin, natrecor, abarelix, gastrine G17, peptide, ziconotide, cereport, interleukin, humanized antibodies and growth hormone.

25. The method of claim 24 wherein said composition is delivered through vaginal epithelium.

26. The method of claim 24 wherein said composition is delivered through nasal mucosa.

27. The method of claim 24 wherein said composition is delivered through buccal mucosa.

28. The method of claim 24 wherein said composition is delivered through scrotal epithelium.